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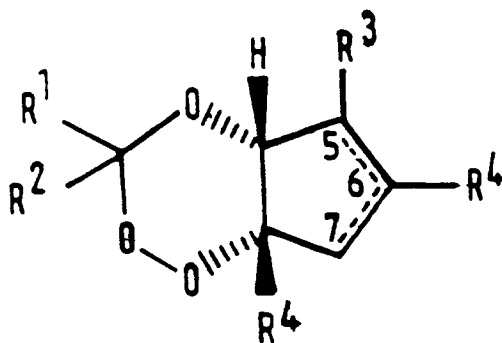
(71) Applicant : **OXACO S.A.**  
**2, Rue Charles-Bonnet**  
**CH-1206 Genève (CH)**

(72) Inventor : **Jefford, Charles William, c/o**  
**Universite de Geneve**  
**Section de Chimie, 30, quai Ernest-Ansermet**  
**CH-1211 Geneve 4 (CH)**

(74) Representative : **Lamb, John Baxter**  
**MARKS & CLERK 57-60 Lincoln's Inn Fields**  
**London WC2A 3LS (GB)**

(54) **Oxygenated heterocyclic compounds, pharmaceutical compositions containing them.**

(57) Compounds having antiparasitic properties are 1,2,4-trioxanes of the formula :



(VII)

in which :

R<sup>1</sup> and R<sup>2</sup> together with the adjacent carbon atom form a cycloalkyl group which may be interrupted by an oxygen atom ;

R<sup>3</sup> is a hydrogen atom or a hydroxyl group or etherified or esterified hydroxyl group, having the exo or the endo configuration, which, when an etherified, esterified or aminated group, may be further functionalized with a phosphate, phosphonate, carbamate or carboxylate group ;

R<sup>4</sup> is an aromatic substituent, optionally substituted with a halogen atom, an alkyl group, a trifluoromethyl group, an alkoxy-alkoxy group or an alkylamino group ; and the dotted lines between positions 5 and 6 and positions 6 and 7 indicate that there is present a 5,6- or 6,7- double bond.



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 93 30 6619 **3**

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                               |                                                     |                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim                                   | CLASSIFICATION OF THE APPLICATION (Int.Cl.5) |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EP-A-0 286 316 (CHARLES W. JEFFORD)<br>* claims *                             | 1-4                                                 | C07D323/06<br>C07D493/10<br>A61K31/335       |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EP-A-0 338 756 (OXACO S.A.)<br>* claims *                                     | 1,3,4                                               |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                               |                                                     | TECHNICAL FIELDS SEARCHED (Int.Cl.5)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                               |                                                     | C07D                                         |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                               |                                                     |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                               | Date of completion of the search<br>9 February 1994 | Examiner<br>Henry, J                         |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone<br/> Y : particularly relevant if combined with another document of the same category<br/> A : technological background<br/> O : non-written disclosure<br/> P : intermediate document</p> <p>T : theory or principle underlying the invention<br/> E : earlier patent document, but published on, or after the filing date<br/> D : document cited in the application<br/> L : document cited for other reasons<br/> &amp; : member of the same patent family, corresponding document</p> |                                                                               |                                                     |                                              |

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